## **ABSTRACT OF THE DISCLOSURE**

The present invention describes a process to produce a composition containing 5'-ribonucleotides wherein a microorganism is subjected to autolysis under conditions at which a substantial part of the RNA remains in a form degradable into 5'-ribonucleotides and at which a substantial part of the RNA remains associated with the cell wall fraction. Said cell wall fraction is recovered by a solid/liquid separation method and the RNA associated with said wall fraction is converted into 5'-ribonucleotides. The present invention also describes compositions containing 5'-ribonucleotides and their use in food or feed.